

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for restricting access to an object-oriented method within a data processing system, the process comprising:
 - initiating a call to the object-oriented method from a requester;
 - determining whether an invocation of the object-oriented method has been restricted with an object-oriented enforcement construct;
 - in response to a determination that access to the object-oriented method has been restricted with an object-oriented enforcement construct, performing an authorization process to determine whether the requester is authorized to invoke the object-oriented method; and
 - in response to a determination that the requester is authorized to invoke the object-oriented method, invoking the object-oriented method;wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.
2. (Original) The process of claim 1 further comprising:
 - in response to a determination that the requester is not authorized to invoke the object-oriented method, returning an error response to the requester for the call to the object-oriented method.
3. (Original) The process of claim 1 further comprising:
 - identifying the authorization process that is associated with the object-oriented method.
4. (Original) The process of claim 1 further comprising:
 - obtaining identity information associated with the requester; and
 - passing the identity information associated with the requester to the authorization process.

5. (Original) The process of claim 1 wherein the authorization process is performed by invoking an authorization method.
6. (Original) The process of claim 1 further comprising:
analyzing runtime environment information in order to determine whether an invocation of the object-oriented method has been restricted with an object-oriented enforcement construct.
7. (Original) The process of claim 1 wherein the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a method level in a source code statement for the object-oriented method.
8. (Original) The process of claim 1 wherein the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a class level in a source code statement for a class that includes the object-oriented method.
9. (Currently Amended) A process of ~~generating source code~~ for restricting access to an object-oriented method within a data processing system, the process comprising:
editing a source code statement that defines the object-oriented method within a source code file; and
modifying the source code file to include an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by a compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;
wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.
10. (Original) The process of claim 9 wherein the enforcement construct is included in the source code statement that defines the object-oriented method.

11. (Original) The process of claim 9 wherein the enforcement construct is included in a source code statement that defines a class that includes the object-oriented method.

12. (Currently Amended) A process of ~~generating executable code~~ for restricting access to an object-oriented method within a data processing system, the process comprising: compiling source code that defines the object-oriented method within a source code file; and
compiling source code that defines an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by a compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;
wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

13. (Original) The process of claim 12 wherein the enforcement construct is included in a source code statement that defines the object-oriented method.

14. (Original) The process of claim 12 wherein the enforcement construct is included in a source code statement that defines a class that includes the object-oriented method.

15. (Currently Amended) A process of restricting invocation of an object-oriented method within a data processing system, the process comprising:
identifying the object-oriented method within a data structure; and
associating an object-oriented enforcement construct with the object-oriented method, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process that is to be executed, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

16. (Currently Amended) A computer program product in a computer-readable medium for use within a data processing system for restricting access to an object-oriented method, the computer program product comprising:

instructions for initiating a call to the object-oriented method from a requester;
instructions for determining whether an invocation of the object-oriented method has been restricted with an object-oriented enforcement construct; instructions for performing, in response to a determination that access to the object-oriented method has been restricted with an object-oriented enforcement construct, an authorization process to determine whether the requester is authorized to invoke the object-oriented method; and

instructions for invoking, in response to a determination that the requester is authorized to invoke the object-oriented method, the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

17. (Original) The computer program product of claim 16 further comprising:
instructions for returning, in response to a determination that the requester is not authorized to invoke the object-oriented method, an error response to the requester for the call to the object-oriented method.

18. (Original) The computer program product of claim 16 further comprising:
instructions for identifying the authorization process that is associated with the object-oriented method.

19. (Original) The computer program product of claim 16 further comprising:
instructions for obtaining identity information associated with the requester; and

instructions for passing the identity information associated with the requester to the authorization process.

20. (Original) The computer program product of claim 16 wherein the authorization process is performed by invoking an authorization method.

21. (Original) The computer program product of claim 16 further comprising: instructions for analyzing runtime environment information in order to determine whether an invocation of the object-oriented method has been restricted with an object-oriented enforcement construct.

22. (Original) The computer program product of claim 16 wherein the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a method level in a source code statement for the object-oriented method.

23. (Original) The computer program product of claim 16 wherein the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a class level in a source code statement for a class that includes the object-oriented method.

24. (Currently Amended) A computer program product in a computer-readable medium for use within a data processing system to generate source code for restricting access to an object-oriented method, the computer program product comprising:

instructions for editing a source code statement that defines the object-oriented method within a source code file; and

instructions for modifying the source code file to include an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by a compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

25. (Original) The computer program product of claim 24 wherein the enforcement construct is included in the source code statement that defines the object-oriented method.

26. (Original) The computer program product of claim 24 wherein the enforcement construct is included in a source code statement that defines a class that includes the object-oriented method.

27. (Currently Amended) A computer program product in a computer-readable medium for use within a data processing system to generate executable code for restricting access to an object-oriented method, the computer program product comprising:

instructions for compiling source code that defines the object-oriented method within a source code file; and

instructions for compiling source code that defines an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by a compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

28. (Original) The computer program product of claim 27 wherein the enforcement construct is included in a source code statement that defines the object-oriented method.

29. (Original) The computer program product of claim 27 wherein the enforcement construct is included in a source code statement that defines a class that includes the object-oriented method.

30. (Currently Amended) A computer program product in a computer-readable medium for use within a data processing system for restricting invocation of an object-oriented method, the computer program product comprising:

instructions for identifying the object-oriented method within a data structure; and
instructions for associating an object-oriented enforcement construct with the object-oriented method, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process that is to be executed, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

31. (Currently Amended) An apparatus for restricting access to an object-oriented method within a data processing system, the apparatus comprising:

means for initiating a call to the object-oriented method from a requester;

means for determining whether an invocation of the object-oriented method has been restricted with an object-oriented enforcement construct; means for performing, in response to a determination that access to the object-oriented method has been restricted with an object-oriented enforcement construct, an authorization process to determine whether the requester is authorized to invoke the object-oriented method; and

means for invoking, in response to a determination that the requester is authorized to invoke the object-oriented method, the object-oriented method;

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium.

32. (Original) The apparatus of claim 31 further comprising:
means for returning, in response to a determination that the requester is not authorized to
invoke the object-oriented method, an error response to the requester for the call
to the object-oriented method.
33. (Original) The apparatus of claim 31 further comprising:
means for identifying the authorization process that is associated with the object-oriented
method.
34. (Original) The apparatus of claim 31 further comprising:
means for obtaining identity information associated with the requester; and
means for passing the identity information associated with the requester to the
authorization process.
35. (Original) The apparatus of claim 31 wherein the authorization process is
performed by invoking an authorization method.
36. (Original) The apparatus of claim 31 further comprising:
means for analyzing runtime environment information in order to determine whether an
invocation of the object-oriented method has been restricted with an object-
oriented enforcement construct.
37. (Original) The apparatus of claim 31 wherein the invocation of the object-
oriented method has been restricted with an object-oriented enforcement construct applied at a
method level in a source code statement for the object-oriented method.
38. (Original) The apparatus of claim 31 wherein the invocation of the object-
oriented method has been restricted with an object-oriented enforcement construct applied at a
class level in a source code statement for a class that includes the object-oriented method.